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EXAMINER	
WOZNIAK, JAMES S	

ART UNIT	PAPER NUMBER
2655	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/832,645	SATOH, KOUICHI	
	Examiner	Art Unit	
	James S. Wozniak	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. In response to the office action from 6/24/2005, the applicant has submitted an amendment, filed 11/21/2005, amending claims 1, 4, 8-10, 14, 16, and 20, while canceling claim 6 and arguing to traverse the art rejection based on the limitation regarding the replacement, translation, and verification of characters identified through image recognition *(Amendment, Pages 10-11)*. Applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments.

2. Due to the claim amendments, the previous objections directed towards a lack of proper antecedent basis have been withdrawn.

Response to Arguments

3. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to the independent claims, the applicant argues that there is no motivation for combining the teachings of Van Ryzin *(U.S. Patent: 5,844,505)* and Martino *(U.S. Patent: 6,061,646) (Amendment, Page 10)*. In response, the examiner notes that the motivation for reference combination is provided by the references themselves. Namely, the Martino reference,

which explains the benefit of utilizing a language identification means to enable speakers of various languages to communicate with an information providing interface *(Col 1, Lines 36-38; prior office action, page 4)*. Thus, since Martino and Van Ryzin are from a similar field of endeavor in information providing interfaces and the motivation for combining the prior art teachings is provided by the references themselves *(see MPEP, 706.02(j))*, the combination of Van Ryzin and Martino is proper.

In response to applicant's arguments against the references individually *(the failure of Martino to teach image recognition or a navigation system, Amendment, Page 10)*, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The examiner notes that it is Van Ryzin that is relied upon to provide the teachings related to image recognition and a navigation system, as is noted in the prior office action *(Page 3)*.

With respect to Claims 1, 8-10, 14, 16, and 20, the applicant argues that Van Ryzin and Martino fail to teach replacing/translating characters identified through image recognition (Amendment, Page 10). In response, the examiner notes that it is the combination of Van Ryzin and Martino that teaches the aforementioned limitation. Specifically, Van Ryzin teaches the use of a camera that captures road sign text characters using optical character *(image)* recognition *(Col. 3, Line 9- Col. 4, Line 22)*, while Martino discloses changing information on a display to a language of a particular speaker *(Col. 11, Line 15- Col. 12, Line 5)*. Thus, when taken in combination, Martino provides a means for changing (replacing, i.e. translating) information to reflect a particular users language on the vehicle navigation text display taught by Van Ryzin

(Fig. 1, Element 12), which contains data received from an optical character recognition device, as is required by the presently claimed invention.

With respect to Claim 24, the applicant argues that Van Ryzin and Martino fail to teach verifying that characters identified through image recognition match the user's spoken language. In response, the examiner notes that it is the combination of Van Ryzin and Martino that teaches the aforementioned limitation. As noted above, Van Ryzin teaches the use of a camera that captures road sign text characters using optical character *(image)* recognition *(Col. 3, Line 9- Col. 4, Line 22)*, while Martino discloses a means for changing information on a display to a language of a particular speaker and language detection *(Col. 11, Line 15- Col. 12, Line 5)*. Thus, when taken in combination, if the language of a recognized road sign in Van Ryzin matches the language of a speaker as determined by Martino, no change in road sign text characters would be necessary because the recognized sign would already be captured in the user's natural language, and thus, an original optical recognition result could be directly presented to a user as shown in Fig. 1 of Van Ryzin *(Element 12)*.

Furthermore, the applicant's arguments fail *(Amendment, Pages 10-11)* to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In response to the applicant's comment regarding the agreement between the applicant's representative and the examiner concerning the patentability of claims 6, 21, and 24 *(Amendment, Page 10)*, the examiner notes that the applicant was informed via a telephone call on approximately 6/15/2005 that the previous agreement was rescinded in light of a new art

rejection, which was then made in the office action from 6/24/2005. Thus, this previous agreement is no longer valid.

The dependent claims further limit rejected independent claims, and thus, also remain rejected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1-5, 9-13, 16, and 20-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ryzin *(U.S. Patent: 5,844,505)* in view of Martino et al *(U.S. Patent: 6,061,646)*

With respect to **Claim 1**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22).

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language*

identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24).

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38).*

With respect to **Claim 2**, Van Ryzin discloses:

The navigation processing means includes map-displaying means for displaying map information showing a vicinity of a vehicle *(Col. 3, Lines 48-65).*

Additionally, Martino teaches the language identification means for formatting a display output in a speaker's language as applied to claim 1.

With respect to **Claim 3**, Van Ryzin discloses:

The navigation processing means includes route-searching means for searching for a route to a destination and route-guiding means for guiding a vehicle by means of guiding speech along a route set by the route searching means *(Col. 3, Line 48- Col. 4, Line 17).*

Additionally, Martino teaches the language identification means for formatting a display or audio output in a speaker's language *(Col. 11, Lines 15-24).*

With respect to **Claim 4**, Martino further teaches identifying the speaker's language as the language having the greatest number of hits resulting from a dictionary search *(Col. 9, Lines 44-53; Col. 10, Lines 58-65)*.

With respect to **Claim 5**, Martino further discloses:

A database for storing features of a speaker's language as extracted by the language determining means *(language recognition dictionaries, Col. 9, Lines 14-27)*; and

The speaker's language is determined individually *(language recognition dictionaries accounting for speaker variation, Col. 9, Lines 14-43)*.

With respect to **Claim 9**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for a text image display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 33). Van Ryzin further teaches the use of a microphone for receiving a speech input *(Col. 3, Lines 36-48)* and outputting guiding data in an audio format *(Col. 3, Line 66- Col. 4, Line 46)*.

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language or an identity learning unit for computing a frequency of languages, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*. Martino further teaches a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" *(Col. 10, Lines 30-32)* associated with

different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value (Col. 11, Lines 1-4; and FIG. 2). The WFA are stored in "storage medium" (Column 11, Lines 14-17) that could be a database or memory. Martino also provides a means for determining the language of a text unit *(Col. 10, Lines 19-65)*.

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

With respect to **Claim 10**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22). Van Ryzin further teaches the use of a microphone for receiving a speech input *(Col. 3, Lines 36-48)*.

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language or an identity learning unit for computing a frequency of languages, however Martino teaches a device and method that

recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*. Martino further teaches a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" *(Col. 10, Lines 30-32)* associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value (Col. 11, Lines 1-4; and FIG. 2). The WFA are stored in "storage medium" (Column 11, Lines 14-17) that could be a database or memory. Martino also provides a means for determining the language of a text unit *(Col. 10, Lines 19-65)*.

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

With respect to **Claim 11**, Van Ryzin discloses outputting guiding data in an audio format *(Col. 3, Line 66- Col. 4, Line 46)*.

With respect to **Claim 12**, Van Ryzin teaches the image recognition means, as applied to Claim 10, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as applied to claim 10.

With respect to **Claim 13**, Van Ryzin discloses:

The guiding sign generating unit generates the guiding image without replacing the language of the character strings *(Fig. 1 and Fig. 2A-C)*.

With respect to **Claim 16**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22).

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*.

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a

person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

With respect to **Claim 20**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22). Van Ryzin additionally teaches generating guiding speech for vehicle navigation *(Col. 3, Line 48- Col. 4, Line 17)*.

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a speech output in the user's language, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to as a speech output in the user's language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and speech formatted in a spoken user language, Col. 11, Lines 15-24)*.

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual speech

dialogue system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

With respect to **Claim 21**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22).

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

With respect to **Claim 22**, Martino teaches the display as applied to Claim 21.

With respect to **Claim 23**, Martino teaches providing a speech output in the language of a user as applied to Claim 20.

With respect to **Claim 24**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver, which would output the characters of the road sign image when the language in the image match a user's language *(Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22)*.

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

With respect to **Claim 25**, Martino teaches providing a speech output in the language of a user as applied to Claim 20.

With respect to **Claim 26**, Martino teaches the display as applied to Claim 24.

6. **Claims 7-8, 14-15, and 17-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Ryzin in view of Martino et al, and further in view of Ashby et al *(U.S. Patent: 6,081,803)*.

With respect to **Claim 7**, Van Ryzin in view of Martino teaches the navigation system capable of outputting a road sign image in the language of a user, as applied to Claim 1. Van Ryzin in view of Martino does not specifically teach a means for requesting and downloading navigation related data, however Ashby teaches a client-server environment for acquiring navigation data, where it will necessarily have the transmission means for sending and downloading information *(Col. 20, lines 18- 25)*.

Van Ryzin, Martino, and Ashby are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin in view of Martino with the client-server environment taught by Ashby in order to provide the benefit of storing an increased amount of navigation data on a remote network device *(Ashby, Col. 3, Lines 5-14)*, thus increasing the amount of navigation data that is accessible to a user.

With respect to **Claim 8**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22). Van Ryzin further teaches the use of a microphone for receiving a speech input *(Col. 3, Lines 36-48)*.

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language or an identity learning

unit for computing a frequency of languages, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*. Martino further teaches a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" *(Col. 10, Lines 30-32)* associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value (Col. 11, Lines 1-4; and FIG. 2). The WFA are stored in "storage medium" (Column 11, Lines 14-17) that could be a database or memory. Martino also provides a means for determining the language of a text unit *(Col. 10, Lines 19-65)*.

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

Van Ryzin in view of Martino does not specifically teach a means for displaying a map image nor a means for reading map data from a storage medium, however As per claim 9, Ashby

discloses a navigation system having language-determining means (Col. 19, Lines 6-12), a disk-reading device (CD-ROM, Col. 5, Lines 22-25), map reading device (18, FIG. 2, Col. 19, Lines 33-43), intersection guiding unit (maneuver generation function, 32, FIG. 2), display (27, FIG. 1), audio unit (29, FIG. 1), and a processor (map control unit) capable of accessing maps in memory buffer (RAM, 20, FIG. 1) and non-volatile memory (16, FIG. 1 and 30, FIG. 1).

Van Ryzin, Martino, and Ashby are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin in view of Martino with the map reading means taught by Ashby in order to provide geographic map images as additional data in determining an optimum driving route *(Ashby, Col. 1, Lines 15-37; Col. 2, Line 61- Col. 3, Line 19)*.

With respect to **Claim 14**, Van Ryzin discloses a vehicle navigation system and method utilizing a camera for performing image recognition on road signs for display to a driver (Fig. 1, Elements 12 and 20; Col. 3, Line 9- Col. 4, Line 22). Van Ryzin further teaches the use of a microphone for receiving a speech input *(Col. 3, Lines 36-48)*.

Although Van Ryzin suggests the use of speech recognition with a vehicle navigation device *(Col. 3, Lines 36-44)*, Van Ryzin does not teach performing speech recognition to identify a user language in order to format a display output in the user's language or an identity learning unit for computing a frequency of languages, however Martino teaches a device and method that recognizes a user's speech, makes a language determination, and then supplies requested data to a user on a display in the spoken language *(language identification, Col. 2, Lines 21-37; Col. 5, Lines 11-23; and display formatted in a spoken user language, Col. 11, Lines 15-24)*. Martino

further teaches a language identification system that "compares each source word with all the common words in all Word Frequency Tables (WFTs)" *(Col. 10, Lines 30-32)* associated with different languages, updates Word Frequency Accumulators (WFAs) for each language and once the processing of the document is finished, picks the language with the highest WFA value (Col. 11, Lines 1-4; and FIG. 2). The WFA are stored in "storage medium" (Column 11, Lines 14-17) that could be a database or memory. Martino also provides a means for determining the language of a text unit *(Col. 10, Lines 19-65)*.

Also, Van Ryzin teaches the image recognition means, as noted above, for outputting a captured image of a road sign on a user display, while Martino teaches the language identification means for formatting a display output in a speaker's language as noted above.

Van Ryzin and Martino are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin with the language identification means taught by Martino to implement a multilingual information providing system enabling speakers of various languages to communicate with the device *(Martino, Col. 1, Lines 36-38)*.

Van Ryzin in view of Martino does not specifically teach a means for displaying a map image nor a means for reading map data from a storage medium, however As per claim 9, Ashby discloses a navigation system having language-determining means (Col. 19, Lines 6-12), a disk-reading device (CD-ROM, Col. 5, Lines 22-25), map reading device (18, FIG. 2, Col. 19, Lines 33-43), intersection guiding unit (maneuver generation function, 32, FIG. 2), display (27, FIG.

1), audio unit (29, FIG. 1), and a processor (map control unit) capable of accessing maps in memory buffer (RAM, 20, FIG. 1) and non-volatile memory (16, FIG. 1 and 30, FIG. 1).

Van Ryzin, Martino, and Ashby are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin in view of Martino with the map reading means taught by Ashby in order to provide geographic map images as additional data in determining an optimum driving route *(Ashby, Col. 1, Lines 15-37; Col. 2, Line 61- Col. 3, Line 19)*.

With respect to **Claim 15**, Ashby further discloses language-determining means (Col. 19, lines 6-12), a map reading device (18, FIG. 2, Col. 19, Lines 33-43), and a processor (map control unit) capable of accessing maps in memory buffer (RAM, 20, FIG. 1) and non-volatile memory (16, FIG. 1 and 30, FIG. 1). Once a user chooses a specific language, maps and maneuver directions will necessarily use the chosen language *(Col. 19, Lines 35-36)*. Ashby also teaches the client-server environment as applied to Claim 7.

With respect to **Claim 17**, Van Ryzin in view of Martino teaches the navigation system capable of outputting a road sign image in the language of a user, as applied to Claim 16. Van Ryzin in view of Martino does not specifically teach detecting map data in a storage medium in a user's language, however Ashby teaches map data storage means as applied to Claim 15, and further discloses searching for map data in a user's specified language *(Col. 19, Lines 26-58)*.

Van Ryzin, Martino, and Ashby are analogous art because they are from a similar field of endeavor in information providing interface systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Van Ryzin

in view of Martino with the map reading means taught by Ashby in order to provide multilingual support for geographic map images in determining an optimum driving route *(Ashby, Col. 1, Lines 15-37; Col. 2, Line 61- Col. 3, Line 19)*.

With respect to **Claim 18**, Ashby further teaches returning a base language name if there is no language entry in the storage means *(Col. 19, Lines 26-58)*.

With respect to **Claim 19**, Ashby further discloses language-determining means (Col. 19, lines 6-12), a map reading device (18, FIG. 2, Col. 19, Lines 33-43), and a processor (map control unit) capable of accessing maps in memory buffer (RAM, 20, FIG. 1) and non-volatile memory (16, FIG. 1 and 30, FIG. 1). Once a user chooses a specific language, maps and maneuver directions will necessarily use the chosen language *(Col. 19, Lines 35-36)*. Ashby also teaches the client-server environment as applied to Claim 7.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Palisson et al *(U.S. Patent: 5,835,854)*- teaches a means for performing road sign translations.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
2/7/2006

DAVID HUDSPETH
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